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09/490,502	01/25/2000	Hongyung Zhang	1508.63556	7217

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EXAMINER

DUONG, TAI V

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 05/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/490,502

Applicant(s)

ZHANG, HONGYUNG

Examiner

TAI DUONG

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2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 March 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-7 and 11-14 is/are rejected.
- 7) ☒ Claim(s) 4 and 8-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3, 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 2 is confusing because of the term “alternatively”. Does claim 2 intend to recite that two LC panels of same size are formed in each block or two LC panels of different size are formed in each block ? In the below prior art rejection, claim 2 is interpreted as “two LC panels of same size are formed in each block”. Claim 7 is confusing because it is unclear whether the step of forming liquid crystal panels having united driving circuit of plural kinds and different size and the step of arranging directions of the driving circuits to be identical to one another with respect to display section of each liquid crystal panel are performed before or after the step of performing arraying, the step of performing primary cutting, the step of performing sub-TFT substrate processing or the step of performing secondary cutting.

In claim 6, line 6, it is suggested to change “the same” to “the sub-TFT substrate” for the claim language being clear.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1-3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koder a et al.

Koder a et al disclose in Fig. 28 the step of performing arraying for plotting a master glass substrate into a plurality of blocks, in Fig. 29 the step of performing primary cutting, in Fig. 30 the step of performing sub-substrate processing including performing end face processing for the sub-substrates (sealing the injection port), and in Fig. 31 the step of performing secondary cutting for cutting the sub-TFT substrate (col. 1, line 22 - col. 2, line 9). Further, Koder a et al disclose that active elements are formed on the inside faces of the glass substrates (col. 1, lines 22-26). Thus, the only difference between the manufacturing method of Koder a et al and that of the instant claims are the active elements being thin film transistors (TFTs). However, Koder a et al disclose that the active elements can be TFTs (col.10, lines 23- 25). Thus, it would have been obvious to a person of ordinary skill in the art to employ TFTs as the active elements in Koder a's method for fabricating display devices with high resolution and high contrast, as compared to MIMs.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koder a et al as applied to claim 1 above, and further in view of Yamazaki et al'977.

Claim 5 additionally recites the step of irradiating the amorphous silicon film with a rectangular laser beam and moving the laser beam in one direction. Yamazaki'977 discloses that it was known to employ the above step for converting amorphous silicon into polysilicon (col. 22, lines 37-67). Thus, it would have been obvious to a person of ordinary skill in the art in view of Yamazaki'977 to employ the above step in the method cited in the above rejection of claim for

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obtaining TFTs with high mobility and a laser system with high energy density on the illuminated surface.

Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodera et al as applied to claim 1 above, and further in view of Yamazaki et al'082 .

Claims 11-14 additionally recite different types of LC panels. Yamazaki '082 discloses in Figs. 13A-F and 14A-D that it was known to form different types of LC panels. Thus, it would have been obvious to a person of ordinary skill in the art in view of Yamazaki'082 to fabricate different types of LC panels by the method cited in the above rejection of claim 1 for specific applications or devices, such as laptops , digital cameras or camcorders, PDAs or projectors.

Claim 7 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 4 and 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 4 and 7-10 would be allowable over the prior art of record because the prior art do not disclose or suggest the particular sub-TFT substrate processing step as recited in claims 4 and 7-10.

Any inquiry concerning this communication should be directed to Tai Duong at telephone number 703 308-4873.

TV D  
5/03

KENNETH PARKER  
PRIMARY EXAMINER